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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/902,112 | 07/11/2001 | Shigeyuki Kuroda | KOM-136/INO | 8215 |

7590 06/13/2005

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| EXAMINER |
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STEVENS, THOMAS H

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| ART UNIT | PAPER NUMBER |
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2123

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/902,112

Applicant(s)

KURODA, SHIGEYUKI

Examiner

Thomas H. Stevens

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 04 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. 209620.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/20/04
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-5 were examined.

Section I: Response to Applicants' Arguments (1st Office Action)

Drawings

2. Applicants are thanked for addressing this issue. Objection is withdrawn.

Priority

3. Applicants are thanked for addressing this issue. Objection is withdrawn.

Information Disclosure Statement

4. Applicants are thanked for addressing this issue. Legible copiers were presented and accepted. Objection is withdrawn.

35 USC § 112

5. Applicants are thanked for addressing this issue. Applicants' response is persuasive to negate rejection.

35 USC § 102

6. Applicants are thanked for addressing this issue; however, arguments presented are non-persuasive. Applicants' argue the prior art by Takayama et al. ("Takeyama") doesn't teach or suggest data summarily speaking, data tables of materials constituting a product to calculate a (efflux (column 6, lines 21-25)) or flow with material codes (applicants' response, pg. 8, 5th paragraph). Firstly, *www. Dictionary.com* defines efflux as "A **flowing** outward". Takeyama states in column 6, lines 21-25 the "*present invention aims at making particular **flows** (figure 1 and figure 3) represent life cycle of a product. In a conventional LCA, analysis, after each part of raw materials is traced back to its source and as many steps (process) as there are tens of thousands of stages in total amount of emission of each of typical environmental pollutants, including CO₂, SO_x and NO_x, is picked up, and t he environmental load is determined from the sum total*"

Applicants' argue that Takeyama fails to teach or suggest the storing material codes indicating the material of each part. Figure 15 with columns 14-15, lines 56-67 and 30 41, respectively teach a "material storage section (that) stores material input" (column 15, lines 30-31).

Furthermore, applicants' argue that Takeyama fails to teach or suggest calculating the discharge amount of efflux (column 6, lines 21-25) for every material code. Takeyama does teach determined environmental loads at each of the stages S1 and S6 which is the entire process (see figure 1) as stated: *The environmental load equations are used to calculate the amount of emission of an environmental load from*

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the input about each material and the unit load emission corresponding to the material stored in the input material storage section 35. The environmental load equations are modeled in life states S1 to S6. (column 16, lines 5-9)

Thus rejection stands.

Section II: Final Rejection (2nd Office Action)

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeyama et al. (U.S. Patent 5,852,560 (1998)). Takeyama et al., teaches an environment load equation storage section that stores environmental load equations modeled on a stage at which a product is produced and used and a s stage of waste treatment and recycling, etc. (abstract).

Claim 1. An environmental indicator calculation method (abstract) comprising the steps of: (1) storing a data base and a data table in a memory, the data base having a collection of data (columns 22, lines 66-67 and 1-6, respectively) on the part lists and specifications of products (column 2, lines 51-55) in conjunction with product identification codes (column 16, lines 19-21), the data table containing processing yields and environmental indicator factors (column 6, lines 30-37) in conjunction with material codes (column 16, lines 19-21) which respectively indicate the material of each part

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constituting a product; (2) extracting part numbers by looking them up in the data base with a product identification code which has been input (column 15, lines 14-20 with figure 17); (3) calculating a processing yield and environmental indicator factor for every material code by referring the data table (column 15, lines 30-42), the material codes relating to the parts corresponding to the part numbers (column 15, lines 14-20 with figure 17) which have been extracted; and (4) calculating the discharged amount of efflux (column 6, lines 21-25) associated with an environmental indicator for every material code based (column 16, lines 19-21) on its corresponding processing yield (column 15, lines 53-67 with column 16, lines 35-54) and environmental indicator factor which have been obtained, while calculating the total amount of efflux (column 6, lines 21-25) discharged from the whole product (column 5, lines 49-58).

Claim 2. An environmental indicator calculation apparatus comprising (column 5, lines 42-59): (1) a data base having a collection of data on the part lists (column 15, lines 14-20 with figure 17) and specifications of products in conjunction with product identification codes (column 15, lines 14-20 with figure 17; column 7, lines 41-63); (2) a data table containing processing yields and environmental indicator factors in conjunction with material codes which respectively indicate the material of each path constituting a product (column 7, lines 5-39 with figure 4); and (3) computing means for (column 7, lines 5-39 with figure 4) (i) extracting part numbers and the weight of a part associated with every part number by looking them up in the data base with a product identification code which has been input, (column 15, lines 14-20 with figure 17; column

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8, lines 26-31, figure 7) (ii) calculating a processing yield and environmental indicator factor for every material code by referring the data table, the material codes relating to the parts corresponding to the part numbers which have been extracted, and (iii) calculating the discharged amount of efflux (column 6, lines 21-25) associated with an environmental indicator for every material code (column 7, lines 5-39 with figure 4) based on its corresponding processing yield and environmental indicator factor which have been obtained, while calculating the total amount of efflux (column 6, lines 21-25) discharged from the whole product (column 5, lines 49-58).

Claim 3. An environmental indicator calculation apparatus according to claim 2, (column 5, lines 42-59; column 15, lines 14-20 with figure 17; column 7, lines 41-63; column 7, lines 5-39 with figure 4; column 5, lines 49-58) wherein the discharged amount calculated by the computing means includes the discharged amount of efflux (column 6, lines 21-25) during preparation of the materials of the parts; the discharged amount (column 7, lines 41-63) of efflux (column 6, lines 21-25) during processing and assembling of the parts (column 7, lines 5-39 with figure 4 (far right column)); the discharged amount of efflux (column 6, lines 21-25) during delivery and use of the product (column 7, lines 5-39 with figure 4 (far right column)); and the discharged amount of efflux (column 6, lines 21-25) during disassembling and disposal of the product (column 7, lines 5-39 with figure 4 (far right column)).

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Claim 4. An environmental indicator calculation apparatus according to claim 2 or 3, (column 5, lines 42-59; column 15, lines 14-20 with figure 17; column 7, lines 41-63; column 7, lines 5-39 with figure 4; column 5, lines 49-58) further including an abnormal code conversion table for converting a material code incorrectly given into a normal material code, and after conversion of an abnormal material code into a normal material code by referring this abnormal code conversion table, said calculation of the processing yield and the environmental indicator factor is executed.

Claim 5. A computer-readable (column 24, lines 12-15), recording medium for storing a program for executing an environmental indicator calculation process by a computer (column 5, lines 42-59; lines 41-63; column 7, lines 5-39 with figure 4; column 5, lines 49-58), the process comprising the steps of: (1) extracting part numbers by looking them up in a data base with a product identification code which has been input, the data base having a collection of data on the part lists (column 15, lines 14-20 with figure 17; column 7) and specifications of products in conjunction with product identification codes; (2) calculating a processing yield and environmental indicator factor for every material code by referring a data table (column 7, lines 5-39 with figure 4 (far right column), the material codes relating to the parts corresponding to the part numbers which have been extracted, the data table containing processing yields and environmental indicator factors in conjunction with material codes which respectively indicate the material of each part constituting a product (column 7, lines 5-39 with figure

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4 (far right column); and (3) calculating the discharged amount of efflux (column 6, lines 21-25) associated with an environmental indicator for every material code based on its corresponding processing yield and environmental indicator factor which have been obtained, while calculating the total amount of efflux (column 6, lines 21-25) discharged from the whole product (column 5, lines 49-58).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-

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3715, Monday-Friday (8:00 am- 4:30 pm) or contact Supervisor Mr. Leo Picard at (571) 272-3749. Fax number is 571-273-3715.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

June 7, 2005

THS

Cup
W. Thomas
Art. 2123
Primary
TC 2100